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Changing the topic in question-answer pairs: a production study on the use of subject, topicalization and passive in Italian

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Abstract:

The present study deals with the production of discourse-related structures, and in particular it focuses on the use of (lexical vs null) subjects, topicalized structures with clitic pronouns (e.g. Subject-Cl-Verb) and passives in Italian-speaking children (aged from 4- to 9-year-old), as well as in adults. Three eliciting questions, associated with transitive actions, manipulated the discourse context by asking to talk about the agent, the patient or elicited an all-new description of the event. The production task enabled us to investigate the use of null vs overt lexical subjects, by contrasting the conditions in which the subject was new or given information in the question; second, we examined the way children and adults topicalize the patient. Results showed that both children and adults preferred the use of null subjects when the subject was given in the question, whereas they both opted for a lexical preverbal subject when it was new information. Children and adults, instead, sharply differed in the way they topicalized the patient: all children, also in the oldest group, preferred the use of topicalized structures with an active verb and a clitic pronoun referring to the topic patient; adults instead overwhelmingly opted for the passive. These results showed that the avoidance of passive in this specific eliciting context persisted even at a later stage in development.

Keywords: First Language Acquisition, Italian, Passive, Subject, Topic

1. *Introduction**

The study investigates Italian-speaking children's production of discourse-related structures involving the use of (lexical vs null) subjects, topicalized structures and passives, from pre-school to school age (from 4 to 9 years of age).

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The production task exploited question-answers pairs,¹ which forged different discourse contexts in which children and adults were asked to modulate their answers. Specifically, the experimental questions, associated with transitive actions depicted on a set of cards, elicited an all-new description of the event (e.g. What is happening here?) or varied the discourse topic by introducing one of the arguments of the verb in the discourse (Agent: What is X_{agent} doing? vs Patient: What is happening to X_{patient}?). These three discourse fragments allowed us to explore the use of lexical vs null subjects on one hand, and the use of passive vs topic structures with clitic pronouns on the other.

Italian is a null-subject language in which the use of overt (lexical or pronominal) subjects is regulated by specific discourse properties linked to topic or focus interpretation (e.g. topic shift, focalization; see Cardinaletti 2004; Frascarelli 2007; Rizzi 2005; Belletti 2004 for post-verbal subjects). In our study, we particularly concentrate on the use of preverbal lexical subjects and null subjects. Preverbal lexical subjects can be associated with an *aboutness* interpretation (Cardinaletti 2004; Rizzi 2005, 2006, forthcoming): given an all-new question, as (1a), the subject of the sentence ('a truck' in (1b), 'a bus' in (1c)) is the argument that the sentence is *about* (examples from Rizzi 2005: 210):

- (1) a. Q: Che cosa è successo?
 'What happened?'
 b. A: Un camion ha tamponato un autobus.
 'A truck bumped into a bus'
 c. A: Un autobus è stato tamponato da un camion.
 'A bus was bumped into by a truck'

The preverbal subject can thus convey new information in an all-new sentence, as illustrated in (1); however, preverbal subjects are also compatible with given information when the referent is already mentioned in the question, as (2) (2a-b from Rizzi 2005: 210), giving rise to some similarity with topics:²

¹ See Belletti and Rizzi (2017) on the use of question-answer pairs as a useful method to create specific discourse contexts for investigating the production of topics and *foci*.

² Topics (e.g. Clitic left dislocated topics) and preverbal subjects share the interpretative property of introducing the argument that sentence is about. However, it is worth highlighting that topics, unlike preverbal lexical subjects, require to be linked to the discourse (D-linking, Rizzi 2005), thus they are not felicitous in out-of-the blue contexts. The minimal pair in (i) clearly illustrates the difference between topics and subjects: in response to an out-of-the-blue question (introducing no arguments), the CLD in which 'the bus' is the discourse topic is not felicitous, contrary to the full appropriateness of the passive sentence in which 'the bus' is the preverbal subject:

(i) Q: Che cosa è successo?
 'What happened?'

- (2) a. Q: Che cosa è successo all'autobus?
 'What happened to the bus?'
 b. A: (L'autobus) è stato tamponato dal camion.
 'The bus was bumped into by the truck.'
 c. Q: Che cosa ha fatto il camion?
 'What did the truck do?'
 d. A: (Il camion) ha tamponato un autobus.
 'The truck bumped into a bus.'

In (2b, d), as pointed out in Rizzi (2005), the reiteration of the subject in the answer is possible but the unmarked and preferred option would involve the use of a null subject, both in the passive and in the active sentence. Notice that, after an out-of-the-blue question, as in (1a), the subject of the active and of the passive sentence needs to be overt since the question requires an all-new description of the event.

Given this property of Italian subjects, we specifically explored how children deal with the selection of subjects in production, when the referent is given in the question, for which we expect the preference for null subjects in the answer, and when it is new, which should instead elicit overt lexical subjects; notice that a null subject in this context would not be appropriate and so it would yield an under-informative answer.

Previous research on the acquisition of subjects in Italian has reported early mastery of the syntax and pragmatics of null and overt subjects in spontaneous production analysis (Lorusso 2003; Lorusso *et al.* 2005; Serratrice 2005; for a comprehensive summary of previous studies, cf. Serratrice 2008; Belletti and Guasti 2015: 231). The present study systematically investigated this discourse-related property of the Italian subject in a controlled experimental setting, in children (aged from 4 to 9) and in adults.

The second issue we aimed to address involves the use of other discourse-related structures, in particular we tested the production of passives and topicalized structures with a clitic pronoun in a context in which the topic is the patient of the verb. This context was created by asking patient-oriented questions, which introduced the patient in the discourse, as shown in (3a). Notice that this type of question (3a) can be answered with a passive, in (3b), or with a Clitic Left Dislocation (CLLD, Cinque 1990), in (3c):

- (3) a. Q: Che cosa è successo all'autobus?
 'What happened to the bus?'

A: # Un autobus/l'autobus per Roma, un camion lo ha tamponato.
 'A bus/the bus for Rome, a truck bumped into it.'
 A': Un autobus è stato tamponato da un camion
 'A bus was bumped into by a truck.'

- b. A: (L'autobus) è stato tamponato dal camion.
'The bus was bumped into by the truck.'
- c. A': (L'autobus), il camion lo ha tamponato.
'The bus, the truck bumped into it.'

The discourse topic in (3), 'the bus', can be unpronounced in both answers, giving rise to a passive sentence with a null subject, and to a CILD with a covert left-dislocated object, which results in a *Subject-Cl-Verb* sentence.

This type of patient-oriented context has been adopted cross-linguistically to elicit passives and alternative topic structures (*English*, Pinker *et al.* 1987; *Sesotho*, Demuth *et al.* 2010; *Italian*, Manetti 2013; Del Puppo and Pivi 2015; Volpato *et al.* 2016; Manetti and Belletti 2017; *Catalan*, Prat-Sala and Hahn 2007).

As for Italian, the structure with the object realized with a pronoun (e.g. CILD in (3c)) has been found to be the most typical answer in children, differently from adults' overwhelming preference for the passive (Manetti 2013; Volpato *et al.* 2014, 2016; Del Puppo and Pivi 2015; Manetti and Belletti 2017; Belletti and Manetti (submitted)). We will return on the findings of the just mentioned studies in Section 3.

2. *The study: elicited production task*

In the present study, Manetti's (2013) design³ has been adopted to test children from pre-school to school age. The task utilized three discourse contexts using question-answer pairs, which aimed at eliciting the description of transitive actions from different points of view. To summarize what already outlined in the Introduction (cf. Section 1), all question-answers pairs allowed us to control for the use of lexical vs null subjects, contrasting two discourse conditions of the subject (new vs given information), both in active and passive sentences. The patient-oriented condition instead elicited structures having a patient topic: the aim was to track the development of the production of structures with a pronoun vs passives from pre-school to school-aged children, and to compare children's to adults' answers.

2.1 *Participants*

A group of 63 children, aged from 4;2 to 9;10 years, participated in this study. The children were recruited in a kindergarten and in a primary school

³ In Manetti (2013), the task was designed as a baseline measure for the use of passives in a non-priming setting in 3- and 4-year-olds, which was then compared to the production of passives in a syntactic priming experiment.

in the area of Florence: all participants had no language or developmental impairment. Two children, aged 4;2 and 4;9, were excluded from the study,⁴ so in total we tested 61 children. A control group of 12 Italian-speaking students, aged from 20 to 27 year-old was tested.⁵ In Table 1, the participants were divided into six age groups, which comprise pre-school-aged (G4 and G5; aged from 4; 2 to 5; 11 y.o.), school-aged children (G7, G8, G9 aged from 7; 1 to 9; 10), and finally adults (GA).

Table 1. Age groups

	N=	Age range	Mean Age	SD (in months)
G4	12	4;2 - 4;11	4;5	2.77
G5	15	5;0 - 5;11	5;5	3.42
G7	12	7;1 - 7;10	7;5	2.60
G8	12	8;0 - 8;7	8;3	2.10
G9	10	9;1 - 9;10	9;7	2.84
GA	12	20 - 27	22;6	30.03

2.2 Materials and Procedure

The material consisted of a set of 24 cards⁶ on which transitive actions and pairs of humans/animals were depicted. Each transitive verb (*schiacciare* 'squash', *prendere* 'take', *mordere* 'bite', *lavare* 'wash', *catturare* 'catch', *graffiare* 'scratch', *spingere* 'push', *leccare* 'lick') was used three times. The animal characters played the agent role (*leone* 'lion', *cane* 'dog', *rana* 'frog', *cavallo* 'horse', *maiale* 'pig', *elefante* 'elephant', *tigre* 'tiger', *mucca* 'cow'), and the human beings played the patient role (*fata* 'fairy', *strega* 'witch', *infermiera* 'nurse', *ladro* 'robber', *pompieri* 'fireman', *re* 'king', *dottore* 'doctor', *clown* 'clown').

The cards were paired with 24 questions organized under three conditions which corresponded to Neutral questions (4a), Agent-oriented questions (4b), and Patient-oriented questions (4c). Examples in (4) illustrate the experimental questions for each condition linked to the picture shown in Figure 1:

- (4) a. (Neutral question)
Che cosa succede?
 what happens?
 'What is happening?'

⁴ These two children were excluded from the analysis since they showed difficulties in answering during the practice session.

⁵ Adults' data correspond to the data reported in Manetti's (2013).

⁶ The pictures were adapted from Katherine Messenger's research (e.g. Messenger *et al.* 2011; and subsequent work).

- b. (Agent-oriented question)
Che cosa fa la mucca?
 what does the cow?
 'What is the cow doing?'
- c. (Patient-oriented question)
Che cosa succede al re?
 what happens to the king?
 'What is happening to the king?'

Figure 1. Experimental card (cow licking king)



Neutral questions consisted of our baseline condition for eliciting an all-new description of the event, in which both arguments of the verb are new. This type of question can lead to the production of SVO active sentences (5a), or alternately it could also elicit a passive sentence with an overt lexical subject (5b):

- (5) a. *La mucca lecca il re*
 'The cow is licking the king.'
- b. *Il re è/viene leccato dalla mucca*
 'The king is licked by the cow.'

In contrast, agent-oriented questions introduced the agent in the discourse and aimed at eliciting an active sentence in which the subject can be null, since the referent is mentioned in the immediate previous question (6):

- (6) *Lecca il re*
pro licks the king
 'It is licking the king.'

Finally, in patient-oriented questions, the patient is the discourse topic, thus two structures are felicitous answers: a passive (7a) and a CILD (7b). Notice that, the left-dislocated object of the CILD, as well as the subject of the passive, can be unpronounced given its immediate and unique mention

in the question, resulting in a passive sentence with a null subject or a *Subject-Cl verb* sentence:

- (7) a. (Il re) è/viene leccato dalla mucca
 ‘(The king) is licked by the cow.’
 b. (Il re,) la mucca lo lecca
 (the king,) the cow him.Cl licks
 ‘(The king,) the cow is licking him.’

The three experimental conditions were manipulated within-items and within-subjects. Three main lists were created. The test included eight trials for each condition, presented in individually randomized order. The 24 experimental items were preceded by three warm-up trials, consisting of two neutral questions and of an agent-oriented question. Children were tested individually in a quiet room of the school, and each session lasted about five to eight minutes. The experimenter and the participant sat in front of each other, and the experimenter showed the card and asked the prompting question. If the child did not answer after the first attempt, the experimenter repeated the question again to give her a second chance to answer, after which the experimenter continued with the following trial. Children’s productions were audio-recorded and then transcribed. Children’s data will be compared to the data from a control group of adults, already reported in Manetti (2013): adults were tested at the university of Siena and each session lasted about five minutes.

2.3 Coding criteria

Children’s and adults’ responses were coded under the following categories: a) (S)VO included active verbs with a null or lexical subject and a lexical DP object (e.g. Subject-Verb-Object; *pro*-Verb-Object); b) *Pronoun* included all sentences containing an object clitic pronoun and an active verb: the subject can be either lexical or null, and the topic object can be either realized as a lexical overt dislocated object (CILD, e.g. Object-Subject-Cl-Verb; RD, e.g. Subject-Cl-Verb-Object), or instead it can be left unpronounced (e.g. Subject-Cl-Verb); c) *Passives* included any copular or *venire* passive sentences, with null or lexical subjects; finally *Other* category included any other productions (e.g. copulas, DPs, fragments).

2.4 Overall results

We coded 1392 utterances of children’s data (95%), and 286 adults’ productions (99%). We will first report the results for the neutral and the agent-oriented conditions; we will then focus on the patient-oriented condition and on the use of *Pronoun* vs *Passives* across groups.

Table 2 and Table 3 report the productions after neutral and agent-oriented questions for children and adults.

Table 2. Production after Neutral questions (raw data and %)

	G4		G5		G7		G8		G9		GA	
(S)VO	60	64%	68	58%	81	94%	76	88%	75	94%	79	83%
Passives	0	0%	6	5%	1	1%	2	2%	3	4%	15	16%
Pronoun	30	32%	41	35%	4	5%	9	10%	1	1%	0	0%
Other	4	4%	2	2%	0	0%	0	0%	1	1%	1	1%

Table 3. Production after Agent-oriented questions (raw data and %)

	G4		G5		G7		G8		G9		GA	
(S)VO	68	72%	89	75%	86	97%	82	96%	77	96%	95	100%
Passives	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Pronoun	24	25%	30	25%	3	3%	3	4%	0	0%	0	0%
Other	3	3%	0	0%	0	0%	0	0%	3	4%	0	0%

In both conditions, the active (S)VO sentence was the preferred answer in all groups; in the neutral conditions, some passives also emerged, even at age 5 (5%), and increased up to 16% in adults.

A closer look at the active (S)VO sentences reveals that the use of subjects varied in the two conditions: in the neutral condition (8a), the subject was always lexical, both in children (355, 99%) and in adults (79, 100%); moreover it was predominantly used in preverbal position, yielding *Subject-Verb-Object* responses (children 99%; adults 100%), as in (8b).

- (8) a. Che cosa succede?
what happens?
'What is happening?'
- b. La mucca lecca il re
the cow licks the king
'The cow is licking the king.'

In contrast, the agent-oriented condition (9a), which introduced the subject in the question, led to a strong preference for the use of null subjects, both in children (354, 88%) and in adults (85, 89%), as shown in (9b).

- (9) a. Che cosa fa la mucca?
what does the cow?
'What is the cow doing?'

- b. Lecca il re
pro licks the king
 'It is licking the king.'

The use of lexical vs null subjects will be further analyzed considering all conditions together (cf. Section 2.4.1). It is worth noticing that the youngest groups, G4 and G5, also produced some structures with the object realized as a pronoun in the neutral and agent-oriented conditions in which the object (corresponding to the patient) was not a topic.⁷

The following table reports the results after patient-oriented questions for each age group.

Table 4. Production after Patient-oriented questions (raw data and %)

	G4		G5		G7		G8		G9		GA	
(S)VO	17	18%	6	5%	14	17%	3	4%	12	15%	3	3%
Passives	0	0%	10	8%	13	16%	14	16%	27	34%	86	90%
Pronoun	63	68%	97	82%	53	65%	64	74%	39	49%	3	3%
Other	13	14%	6	5%	2	2%	5	6%	2	3%	4	4%

In line with previous findings, in response to patient-oriented questions (see 10a), overall children preferred the use of *Pronoun* structures (316/460; 69%, in (10b)) to *Passives* (64/460; 15%, in (10c)), which nonetheless emerged from age 5. Conversely, adults only selected the passive (86/96; 89%) and very few *Pronoun* sentences were produced (3; 3%). By looking at children, only at age 9, the pattern started to change: passives tended to increase (27/80; 34%) and *Pronoun* sentences decreased (39/80; 49%).

As for the passive production, both children and adults mostly produced *venire* ('to come') passive sentences (89%; 75%) as illustrated in (10c); the *by*-phrase was always expressed in both groups (children, 95%; adults 99%). The subject of the passive sentences was always null in children (64; 100%); and predominantly null in adults (77/86; 81%);

⁷ When pre-school children produced *Pronoun* structures after agent-oriented and neutral question, their answer was not fully appropriate given that, by doing so, they treated the patient as a topic even if it was not introduced in the question. In some of these sentences, children produced CLD or RD (with the overt lexical DP object), in other sentences they only realized the object as a clitic pronoun (the lexical object was not expressed). In this latter case, the answers were only partially informative. Though, it is worth mentioning that both the experimenter and the child could see the picture, so the missing information about the arguments of the verb could be easily recovered from it. This overuse of clitic pronouns is in line with what has been found in previous studies, which reported that young children tend to overuse pronouns and omit lexical DPs when the context is shared and visible to the hearer (De Cat 2009). We do not explore this issue any further and we leave it open for future work.

- (10) a. Che cosa succede al re?
 what happens to the king?
 'What is happening to the king?'
 b. La mucca lo lecca
 the mucca_{subj} him.Cl licks
 'The cow is licking him.'
 c. *pro* viene leccato dalla mucca
pro comes licked by the cow
 'It is licked by the cow.'

In *Pronoun* structures, the lexical object was mostly left unpronounced (293/316; 93%, 11a). When the object topic was expressed (23/316; 7%), it yielded both CILDs (11, see 11b), and RDs (12, see 11c). In the sentences in which the lexical object was not realized, the subject was predominantly overt and in preverbal position, leading to *Subject-Cl-verb* sentences (73%), as in (11a). Children also produced some post-verbal subjects (*Cl-Verb-Subject*; 45; 14%), and marginally a small amount of null subjects (*Cl-Verb*; 19; 6%):

- (11) a. La mucca lo lecca
 the mucca_{subj} him.Cl licks
 'The cow is licking him.'
 b. Il re, la mucca lo lecca
 the king_{gobj} the cow_{subj} him.Cl licks
 'The king the cow is licking him.'
 c. La mucca lo lecca, il re
 the cow_{subj} him.Cl licks the king_{gobj}
 'The cow is licking him, the king.'

All age groups also used some SVO descriptions, which did not topicalize the patient thus providing a partially felicitous all-new descriptive answer.

After this first overview of the production in each condition, we will focus on the analysis of subjects by comparing the use of lexical and null subjects on the basis of whether the subject argument was present in the question (new vs given information contexts); we will then move on to examine the use of *Pronoun* vs *Passives*, in the third condition only (patient-oriented condition), in order to explore how children and adults differed in their answers.

2.4.1 Analysis of the use of null vs lexical subjects

As for the use of subjects, we calculated how many null and lexical subjects were produced in all coding categories ((S)VO active sentences, *Passives*

and *Pronoun*), except for *Other* responses. We then distinguished between two conditions, one in which the referent was new and one in which it corresponded to given/old information, i.e. whether it was present in the question or not. Hence, in the case of active sentences, the subject (being the agent of the verb) was part of the new information of the sentence after neutral and patient-oriented question, while it was given/old information after agent-oriented question. In the case of passive sentences, the subject (being the patient of the verb) was new after neutral question, and given information after patient-oriented question, since the patient was present in the eliciting question. In Table 5, we report the distribution of null and lexical subjects in children and adults:

Table 5. Production of *lexical* and *null subjects* in adults and children

	New information		Given information	
	Lexical subject	Null subject	Lexical subject	Null subject
Children	95% (787/826)	5% (39/826)	10% (53/526)	90% (473/526)
Adults	100% (100/100)	0% -	16% (29/181)	84% (152/181)

The pattern is alike in children and adults: the subject of active and passive sentences tended to be produced as null whenever the referent was given in the question (children, 90%; adults, 84%);⁸ whereas the subject was overt and lexical when introducing a new referent (children 95%; adults 100%). Children were marginally less accurate since they produced 5% null subjects when the discourse conditions required a full lexical subject: as the analysis will show, this use of null subjects was not significantly different from adults'.

We ran linear mixed-effect models (Jaeger 2008), using the software R (R Development Core Team, 2008), to analyse the different pattern emerging in the use of lexical vs null subjects: in the best-fitting model, we only included the *Type of information* (new vs given) as the fixed effect, given that *Group* (adults vs children) did not improve the model. Items and subjects were entered as random effects; by-items and by-subjects random slopes were included for the predictor *Type of information*.

⁸ Notice that, in this context, children and adults only produced null pronominal subjects; whereas overt pronominal subjects (e.g. lui/he, lei/she) were never used.

Table 6. Linear mixed-effect model on the production of *lexical vs null subjects*

Fixed effects	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	-4.0240	0.2900	-13.88	p < .0001
Type of Information (new vs given)	7.3194	0.4054	18.05	p < .0001

The model indeed confirmed a significant main effect of the *type of information* on the nature of the subject in the answer, both in adults and children (equally in all age groups): when the referent was new the subject was overt and lexical, whereas when the referent was already present in the question (given information), all participants tended to produce null subjects.

2.4.2 Analysis of the use Pronoun vs Passives in the patient-oriented condition

In the following analysis, we examined the productions after patient-oriented questions: as previously shown in Table 4, children preferred *Pronoun* and adults preferred *Passives*. At this point, we aimed at analyzing whether any significant difference emerged among age groups concerning the use of *Pronoun* and *Passives*. To this aim, we first ran a model in which we controlled for the use of *Pronoun* vs *Passives* across age groups, discarding any other production. The best-fit model only included *Group* (adults vs children) as a fixed effect and items and subject as random intercepts. The model revealed a significant main effect of group (children vs adults), meaning that all children differed from adults in preferring *Pronoun* to *Passives*.

Table 7. Linear mixed-effect model on the production of *Pronoun vs Passives*

Fixed effects	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	-4.8756	0.7658	-6.366	p < .0001
Group (children vs adults)	10.0821	1.8903	5.333	p < .0001

A subsequent analysis focused on the production of passives only to control whether the older group of children (G9, aged 9) would show any significant increase in the use of passives compared to the younger groups. To this aim, we ran a linear mixed-effect model, in order to contrast the production of *Passives* to any other production (*Passives* vs *Non Passives*), across *age groups* (G4 and G5 were treated together as the pre-school group). By-items and by-subjects random intercepts were added to the model. The analysis (see Table 8) showed that all children, even at age 9, differed from adults; we only found a significant difference in the production of passives between G9 (9 y.o.) and preschoolers (G4 and G5).

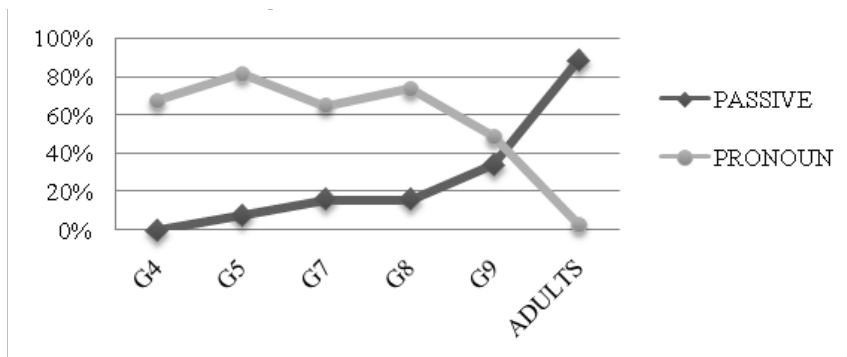
Table 8. Linear mixed-effect model on the production of *Passives* across age groups

Fixed effects	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	-4.8756	0.7658	-6.366	p < .0001
G9 vs Preschoolers	-4.996	2.395	-2.086	p < .05 *
G9 vs Adults	6.974	2.099	3.322	p < .001 **
G9 vs G8	-3.327	2.385	-1.395	p = .163
G9 vs G7	-3.314	2.381	-1.392	p = .164

To summarize, in response to patient-oriented questions, 9-year-old children produced significantly more passives compared to the pre-school group, but they did not differ from 7- and 8- year-olds. Moreover, the oldest group significantly differed from adults.

Interestingly, by analyzing the individual productions, the number of 9-year-olds producing a passive is higher (6/10; 60%) than in the younger groups (G4: 0%; G5: 3/15; 20%; G7: 3/12; 25%; G8: 3/12; 25%). Graph 1 illustrates the development of passive production together with the use of *Pronoun* structures, from age four to adulthood (cf. Table 4):

Graph 1: Production of passive and pronoun structures



3. Summary of the main results and comparisons with previous research

In a production task, we used three types of questions (neutral, agent-oriented and patient-oriented), related to a set of cards depicting transitive actions, which shaped three distinct informational exchanges: this test allowed us to measure how children and adults dealt with the use of subjects, structures with a pronoun as the object, and passive.

The agent-oriented question and the neutral questions both elicited active sentences ((S)VO): in the first condition the subject was already given in the question, thus both children and adults opted for *Verb-Object* sentences with null subjects. Conversely, when the question required an all-new description, the subject was overt and lexical (*Subject-Verb-Object*). The use of subjects was also investigated throughout all conditions by comparing lexical and null subjects in all types of answers (e.g. SVO, passives, *Pronoun* sentences) and contrasting the conditions in which the subject referent was given or new. Overall, our results showed that children produced null and lexical subjects in an adult-like way: lexical subjects were systematically produced when the referent was new information, whereas null subjects were preferred whenever the referent was already given in the question. Our results from the elicited production data are in line with previous findings from spontaneous production analysis, confirming early mastery of the null-subject parameter in Italian-speaking children (Lorusso 2003; Lorusso *et al.* 2005; Serratrice 2005; Belletti and Guasti 2015).

The third condition of the task introduced the patient in the question: this question aimed at testing the production of a passive sentence, in which the patient is both the topic and the subject, or the production of an active sentence with a resumptive clitic pronoun (labeled as *Pronoun*), in which the patient is the topic and the object of the verb. Confirming the results reported in previous work, children and adults significantly differed, in that children opted for *Pronoun* structures and adults instead chose the passive. The *Pronoun* structures were mainly in the form of *Subject-Cl-Verb*, and the topic patient was left unpronounced, giving rise to topic continuity between the question and the answer. Notice that the overt expression of topic is not pragmatically required in this context, since only one topic patient is introduced in the question.⁹

In a developmental perspective, the analysis across age groups showed that the preference for *Pronoun* structures persisted until school age and even the oldest group of children did not behave adult-like. Indeed, we found that at 9-year-old, the pattern started to change, as the passive production increased and *Pronoun* sentences diminished; moreover we found that the production of passive at age 9 significantly differed from the production of passives at age 4 and 5 (pre-school group). Despite this increase in passive production at 9-year-old, a huge gap still persists between the oldest children and adults. These results are fully compatible with Del

⁹ Note that a contrastive condition, with two distinct topic patients in the question, could create a felicitous context for the production of overt lexical object topics: Italian-speaking children showed to master the use of overt left-dislocated objects in such contrastive context (CLLDs, e.g. Object-(Subject)-Cl-Verb; see Manetti and Belletti 2017; Belletti and Manetti (submitted)).

Puppo and Pivi's (2015) findings,¹⁰ who reported analogous performances with school-aged children, in a similar patient-oriented setting. In their data the clitic structure was indeed preferred by all age groups (70% at 6 y.o., 59% at 9 y.o.); despite the passive increased with age, overall it was strongly disfavored and only consisted of 13% at 6 year-old and of 28% at 9 year-old.

It is worth mentioning that, despite the prolonged avoidance of passive in such eliciting context, in previous research as well as in the present study, Italian-speaking preschoolers have shown to produce verbal passive morphosyntax, which has been attested from age 3;5 in elicited production task (Volpato *et al.* 2016) and in a series of syntactic priming experiments (Manetti, 2013; Manetti and Belletti 2015). Comprehension of actional passives also emerged before the age of 5 (see Volpato *et al.* 2016). Keeping in mind that Italian-speaking children have some knowledge of passive syntax from pre-school years, the present study together with previous research shows that children (also in school years), unlike adults, systematically avoid the passive in this particular patient-oriented context, in favor of another felicitous structure (e.g. Subject-Cl-Verb) which can properly accomplish the same discourse function of a passive, namely, treating the patient as the topic. The avoidance of the passive can be considered as a further piece of evidence for the complexity of passive syntax in child grammar (Snyder and Hyams 2015) on the one hand; while on the other our results confirm the earlier access to structures with object clitic pronouns from early on in the acquisition of Italian (see Belletti and Guasti 2015 for an overview of object clitic acquisition).¹¹

4. Conclusions

Three distinct question-answers pairs, associated with the description of transitive actions, changed the discourse topic (agent, patient or all-new description) and investigated the use of subjects, topics and passives, in children and adults.

As for the use of subjects, children showed an adult-like use of the syntax and pragmatics of lexical and null subjects: lexical subjects were used in out-of-the-blue contexts or when the referent was new; in contrast children preferred null subjects when the referent was given in the question.

¹⁰ Del Puppo and Pivi (2015) tested children with typical development and with Developmental Dyslexia; for our purpose, we only extracted the results of typically developing children.

¹¹ During the acquisition of clitic pronouns, Italian-speaking children undergo a clitic-omission stage (around age 2-3), which is almost completely abandoned from age 4, when omission is only residual and marginal (i.e. omissions amount to 2-3% when both arguments are animate, as in our design; Brunetto 2009, cited in Belletti and Guasti 2015: 93).

After patient-oriented question, children and adults resorted to different structures to topicalize the patient: children's most typical answer was the active verb with a clitic pronoun referring to the patient topic (e.g. Subject-Cl-Verb), whereas adults opted for the passive. Children's production of passives emerged at age 5 and started to increase in the oldest group; though, also at age 9, a clear-cut difference arises between adults and children.

Future research is needed to further investigate children's and adults' different pragmatic/discourse choices in this specific experimental context.

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